

I CLAIM:

1. A processing method for the staged decompressing and half-toning of a compressed digital image file which is defined by plural data rows comprising

5 selecting from the image data file a yet un-compressed row region which makes up less than the whole image file,

decompressing the selected row region,

half-toning the decompressed row region,

storing the half-toned row region, and

10 repeating, seriatim, the selecting, decompressing, half-toning and storing steps until the whole image file has been so processed.

2. The method of claim 1 which further comprises, where a selected row region is the same as the last previously processed row region, skipping the 15 decompressing step, and re-half-toning and storing the decompressed version of the last-processed row region.

3. The method of claim 1 which further includes, intermediate the decompressing and half-toning steps, the optional step of resizing a just-decompressed 20 row region.

4. The process of claim 3 which further comprises, where a selected row  
region is the same as the last previously decompressed and optionally resized row region,  
skipping the decompressing and optional resizing steps, and re-half-toning and storing the  
5 decompressed and optionally resized version of the last-produced row region.

5. The process of claim 1, wherein the selected row region includes but a  
single data row.

10 6. The process of claim 1, wherein the selected row region includes plural  
data rows.

7. Apparatus for performing staged decompressing and half-toning of a compressed digital image file which is defined by plural data rows comprising

selecting structure for selecting from the image data file a yet un-decompressed row region which makes up less than the whole image file,

decompressing structure operatively connected to said selecting structure for decompressing a selected row region,

half-toning structure operatively connected to said decompression structure for half-toning the decompressed row region,

10        storing structure operatively connected to said half-toning structure for storing the half-toned row region, and

repeat structure operatively connected to said storing structure for effecting a seriatim repeat of the respective operations of said selecting structure, said decompressing structure, said half toning structure and said storing structure until the

15        whole image file has been processed.

8. The apparatus of claim 7 which further comprises an optionally employed resizing structure which is operatively interposed said decompressing structure and said half-toning structure, with said resizing structure being operable optionally to resize a

20        just-decompressed row region.